REMARKS

In the Office Action, dated November 26, 2008, the Examiner states that Claims 15 and 16 are pending, and Claims 15 and 16 are rejected. By the present Amendment, Applicant amends the claims.

In the Office Action, Claims 15 and 16 are rejected under 35 U.S.C. §102(e) as being anticipated by Asokan et al. (US 2002/0161723). The Applicant has cancelled those claims, and presents new Claims 17-29, which the Applicant considers are novel and not obvious, for at least the following reasons.

The amended claims aim to clarify the invention in the light of the prior art (including the prior art listed in the International Search Report which issued on the international application).

For example, in order to emphasize the underlying operation of the invention, in particular that the virtual cardholder control means, and in an attempt not to change the scope of the invention, the independent claims include the following integers:

"simulating an internet browsing session between the cardholder and a merchant Plug-in URL"; and

"sending an authentication request message to an Issuer access control means by simulating an internet browsing session between the cardholder and the Issuer Access Control Means".

Fair basis for the first of the abovementioned integers can be found in the application on page 10, the last sentence of the first paragraph, while fair basis for the second of the abovementioned integers can be found in the first sentence of the last paragraph on page 10. In amending claims, no new matter was added.

The amended claims are also aimed at obtaining more comprehensive protection for the invention.

Turning to the Office Action, the Applicant respectfully disagrees with the Examiner's rejection of Claims 15 and 16 as being anticipated by US 2002/0161723.

Firstly, the present invention relates to a system and method that enable financial institutions and merchants to use the 3-D Secure™ online cardholder authentication protocol to authenticate cardholders transacting with non-internet enabled devices (see page 4 the second paragraph). The invention operates as a proxy on behalf of the cardholder and simulates a core 3-D Secure™ session to a merchant plug-in and an issuer financial institution access control server (ACS). It is necessary for the invention to operate as a proxy in the light of the cardholder being unable to access the merchant website through a web browser as the device used to access the system is non-internet enabled. The system and method therefore allow for the conversion of voice or data based messages received from non-internet enabled devices into a format that is consistent with the requirements of the 3-D Secure™ protocol.

The functionality enabling this is described in detail in first paragraph on page 10, where it is stated that a virtual cardholder system 104 extracts a unique identifier associated with non-internet enabled device 101 from a purchase request message received from a non-internet enabled device 10, matches it with a corresponding value stored on a database, extracts a primary account number (PAN), Expiry Date and Card Verification Value (CVV) if credit, retrieves a merchant plug-in URL from purchase request message and, simulating an Internet browser, starts an http/s session with the merchant plug-in 105.

Later, in the final paragraph on page 10 and first paragraph on page 11 it is further explained that the virtual cardholder system 104 acts on behalf of the cardholder, again simulates an Internet browser and posts another message to an issuer access control server 107. Issuer access control server 107 responds by sending an HTML purchase authentication page to the virtual cardholder system 104, which is stored by

the virtual cardholder system 104.

Turning to the fifth paragraph on page 11, the virtual cardholder system 104 again acts on behalf of the cardholder to extract cardholder credentials from a further message received from the non-internet-enabled device; parses the stored HTML page recognizing the cardholder credentials field; inserts the cardholder credentials; the appropriate field and posts the HTML purchase authentication page to the issuer access control server 107. The issuer access control server 107 then accepts the cardholder credentials; authenticates it against the account holder database and responds to virtual access control server 107 with an authentication response message.

The interaction between the cardholder and the entities of the 3-D Secure protocol provides a secure space for interaction between the cardholder and the entities of the 3-D Secure protocol.

From the above, in combination with the further functionality of the invention described in the specification, it describes how the virtual cardholder system acts on behalf of the cardholder, in various steps, thereby allowing the 3-D Secure™ protocol to be implemented specifically when a purchase request is received from a non-internet enabled device.

In contrast, US 2002/0161723 relates to a system and method of secure authentication and billing using cellular telecommunication and authorized infrastructure. The abstract sets out that this patent application uses digital signatures based on a shared signing key and being verified using a signature verification service. Most of the patent application focuses on these keys being transmitted between different entities within the system, the use of signatures and digital certificates.

For example, this patent application discloses validating the identity of a mobile station being used in the system utilizing long term keys stored in the mobile station and an authentication center.

The filed of the invention (paragraph [0002] further indicates that the invention "bootstraps an authorization infrastructure so that subscribers of a cellular telecommunication system can buy goods and services from sellers and arrange for payment through the subscriber's telephone bill using a mobile terminal which ensures that errors and fraud do not take place relating to the payment". Therefore, this document relates to the verification of the identity of the mobile station used (paragraphs [0010], [0011] and [0031]) in order "to utilize mobile station similarly to a credit card to pay for goods and services". It is for this reason that US 2002/0161723 is silent on credit or debit card usage or authentication of these cards, but rather focuses on the validity of the identity of the mobile phone. In contrast, the authentication of credit cards is the focus of the present invention.

The rejection states in the Office Action that although particular references contained in the prior art are pointed out, the Application should, in preparing the response, consider fully the entire reference as well as the context of the passage as taught by the prior art. The Applicant respectfully submits that the same applies to the specification and claims of the present invention, and point out that there is few similarities and many differences between the present invention and US 2002/0161723.

In this regard, and turning to new Claim 17, the Applicant points out that the prior art does not disclose a transaction initiated from a mobile device by a card holder. As mentioned above, the user of the mobile device of the prior art is not a card holder, but merely a user of a mobile device.

The prior art further does not disclose or even suggest any of the following integers of new Claim 14:

simulating an internet browsing session between the cardholder and a Merchant Plug-in URL;

sending an authentication request message to an Issuer access control means by simulating an internet browsing session between the cardholder and the Issuer access control means;

receiving a purchase authentication page from the Issuer access control means;

extracting displayable information from the purchase authentication page and storing the purchase authentication web page;

parsing the store purchase authentication page and recognizing the cardholder credential field(s);

inserting the cardholder credentials into the purchase authentication page;

sending the populated purchase authentication page to the Issuer access control means.

For example, the only mention of a URL in the prior art document is in paragraph [0032]. However, this URL is the address of the signature verification service and not that of the seller. Also, although it is fair to assume that the mobile device of the prior art will access a seller/merchant website, there is no disclosure of any simulation of such an internet browsing session.

In fact, there is no disclosure in US 2002/0161723 of the system acting as a proxy. There is also no mention of the 3D Secure protocol which is part of the very essence of the present invention. The integers relating to the extraction of displayable information from the purchase authentication page, parsing the store purchase authentication page and recognizing the cardholder credential field(s), inserting the cardholder credentials into the purchase authentication page are also absent from the prior art document.

The same arguments apply to the lack of disclosure insofar as new Claim 24 is concerned.

The Applicant respectfully further submits that although the solution seems simple, it should be viewed against various systems that have attempted to combine the use of credit cards with mobile devices. Many of these proposals relate to either using credit cards in mobile devices, or using SIM cards or smart cards of mobile devices as new types of credit card. The present invention effectively provides for credit card transactions through the use of mobile devices, which solution only became possible after the introduction of the 3-D Secure protocol in e-commerce transactions. The secure environment provided by the present invention is not dependent on mobile device software or mobile device card technology, but employs a creative application of the 3-D Secure protocol and interacts with the the entities of this trusted technology.

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

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